

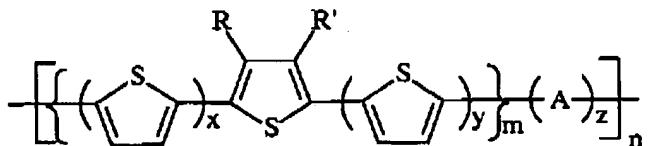
Application No. 10/042,359

processes thereof and uses thereof illustrated in these copending applications may be selected for the present invention in embodiments thereof.--

IN THE CLAIMS:

Please substitute the amended Claims 1, 2, 7, 8, 14, 20, 21, 22, 23, 25, and 26 for pending Claims 1, 2, 7, 8, 14, 20, 21, 22, 23, 25, and 26 as follows:

1. (Amended) Polythiophenes of the formula



wherein R and R' are side chains; A is a divalent arylene linkage; x and y represent the number of unsubstituted thiophene units; z is 1, and wherein the sum of x and y is greater than about 2; m represents the number of segments; and n represents the degree of polymerization.

2. (Amended) A polythiophene in accordance with claim 1 wherein said side chains R, and R' are independently selected from the group consisting of alkyl, alkyl derivatives of alkoxyalkyl; siloxy-substituted alkyl, perhaloalkyl and polyether; said A is phenylene, biphenylene, phenanthrenylene, dihydrophenanthrenylene, fluorophenylene; and n is from about 5 to about 5,000.

7. (Amended) A polythiophene in accordance with claim 1 wherein x is a number of from 1 to about 10, and m is from 1 to about 5.

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8. (Amended) A polythiophene in accordance with **claim 1** wherein x is a number of from about 1 to about 7, m is from 1 to about 5, and n is from about 5 to about 3,000.

14. (Amended) A polythiophene in accordance with **claim 1** wherein R and R' are selected from the group consisting of hexyl, heptyl, octyl, nonyl, decyl, undecyl, dodecyl, tridecyl, tetradecyl, and pentadecyl; A is selected from the group consisting of phenylene, biphenylene, and fluorenylene; x and y are each independently a number of from 2 to about 10; and m is a number of from 1 to about 5.

20. (Amended) A polythiophene in accordance with **claim 1** wherein x, y and m are from 1 to 3.

21. (Amended) A polythiophene in accordance with **claim 1** wherein x, y and m are 1.

22. (Amended) A polythiophene in accordance with **claim 1** wherein x, y are from 0 to 3, and m is from 1 to 3.

23. (Amended) A polythiophene in accordance with **claim 1** wherein x, y and m are 1.

25. (Amended) A polythiophene in accordance with **claim 1** wherein the sum of x and y is from about 2 to about 10.

26. (Amended) A polythiophene in accordance with **claim 1** wherein the sum of x and y is from about 3 to about 5.